

Notice of Allowability

Application No.

10/008,329

Applicant(s)

HERMAN ET AL.

Examiner

JAMES C KERVEROS

Art Unit

2133

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to AMENDMENT filed 10/4/2004.
2. ☒ The allowed claim(s) is/are 1-27 and 29-40 (Renumbered Claims 1-39).
3. ☒ The drawings filed on 04 October 2004 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some* c) ☐ None of the:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).


* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date _____
- ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Interview Summary (PTO-413), Paper No./Mail Date _____
- ☐ Examiner's Amendment/Comment
- ☒ Examiner's Statement of Reasons for Allowance
- ☐ Other _____


GUY J. LAMARRE
PRIMARY EXAMINER

DETAILED ACTION

1. This Office Action is in response to Amendment filed 10/4/2004.

Prior Office Action objections to the drawings, specification and claims rejections under 35 U.S.C. 112, second paragraph, are withdrawn, in view of the Amendment.

Claim 28 is cancelled.

Allowable Subject Matter

2. Claims 1-27 and 29-40 are allowed.

REASONS FOR ALLOWANCE

3. The following is an examiner's statement of reasons for allowance:

The prior arts of record taken alone or in combination fail to teach, anticipate, suggest or render obvious the claimed invention recited in the independent claims, as follows:

Claim 1 recites a method for reducing error recovery time in a hard disk drive, including in combination with other limitations, the steps of determining a successful error recovery step from an error recovery step order, which was successful in recovering a first read error, and adjusting the error recovery step order in the hard disk drive based on the determining step.

Claim 20 recites a hard disk drive, including in combination with other limitations, control electronics operable to detect an error in read data and perform error recovery according to a first error recovery table, and wherein the control electronics are operable to re-order a first error recovery step order based on an error recovery step used to recover from the said.

Claims 26 and 27 recite a method for recovering from a read error in a hard disk drive, including in combination with other limitations, the steps of performing a recovery of a first read error using a predetermined order of error recovery steps, and adjusting the predetermined order of error recovery steps to create a modified order of error recovery steps when the first read error is recovered, wherein the adjusting step in addition includes the steps of:

Determining weight data associated with each of the error recovery steps, modifying the weight data based on the successful error recovery step and re-ordering the order of error recovery steps based on the modified weight data, included in claim 26, and determining a successful error recovery step, and moving the successful error recovery step to the beginning of the predetermined order of error recovery steps, included in claim 27.

Claim 33, recites a method for recovering a read error in a hard disk drive, including in combination with other limitations, the steps of performing an error recovery based on an error recovery table when a first error recovery step is not successful in recovering the read error, wherein the first error recovery step is omitted from the error recovery table, and performing an error recovery based on the error recovery table when the read error does not correspond to an error type and an error location of an error memory element.

4. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably

accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to JAMES C KERVEROS whose telephone number is (571) 272-3824. The examiner can normally be reached on 9:00 AM TO 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Albert Decady can be reached on (571) 272-3819. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.


Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

U.S. PATENT OFFICE
Examiner's Fax: (703) 746-4461
Email: james.kerveros@uspto.gov

Date: 16 December 2004
Office Action: Allowance

By: 

JAMES C KERVEROS
Examiner
Art Unit 2133


Guy J. LAMARRE
PRIMARY EXAMINER